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ABSTRACT

The Mother-Child Home Program was planned as a home-based, two-year cognitive intervention method. Women with varied incomes and education, both volunteer and paid, made 30-minute home visits twice weekly to help mothers become cognitive trainers of their own toddlers (starting at age two). Mother-child verbal interaction was stimulated with gifts of attractive, self-motivating materials, chosen because of their suitability to the child's developmental level, and their potential for verbal interaction when used in play between mother and child. Interveners, called Toy Demonstrators, guided mothers to use the Verbal Interaction Stimulus Materials (VISM) in an atmosphere that was spontaneous, relaxed, and most importantly, nondidactic. Most low income mothers seemed to welcome any kind of cognitive intervention designed to help their children do well in school. Other mothers were resistant, yet appeared cooperative because it was difficult for them to make verbal refusals. A brief appendix highlights several Toy Demonstrators' descriptions of successful mother-involvement techniques. (DB)

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MOTHERS AS EARLY COGNITIVE TRAINERS:

GUIDING LOW-INCOME MOTHERS TO WORK WITH THEIR PRE-PRESCHOOLERS[1]

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MOTHERS AS EARLY COGNITIVE TRAINEES: GUIDING LOW-INCOME MOTHERS TO WORK WITH THEIR PRE-PRESCHOOLERS

Phyllis Levenstein

When the Verbal Interaction Project first began its full research in 1967, after a 1965 pilot project, its charge was primarily to devise and investigate by a before-after experimental method the cognitive effects of a home-based, mother involving intervention program for low-income pre-preschoolers. The investigation,[1] as so many others at the time, was a response to the urgent need, national in scope, to find a viable method for preparing low-income children, before elementary school, to take advantage of the public education road to upward mobility open to all in our country but thus far only successfully utilized, in the main, by children from a higher SES population. It was the assumption of the Verbal Interaction Project, shared by many other intervention projects, that preschool cognitive enrichment must contain a conspicuous language thrust and would be most effective at the period of early speech development for the child: the age of two and three years. We borrowed from Ernst Cassirer and Roger Brown the notions that the child gropes his way from initial labeling into easy use of language, and then to the conceptual development fostered by language. We further assumed that increasing the very young child's exposure to verbal interaction, through his playing what Roger Brown called "The Original Word Game", would broaden the base for his symbolic and thus his conceptual development.

1. Described more fully in Levenstein (1970) and in Levenstein and Levenstein (1971).

Greenfield and Bruner (1966) have suggested that some environments push symbolic development more than others. Although they were speaking of larger cultures, the unplanned ability of middle and upper income families to prepare their preschoolers in home environments for later school success has been noted by many observers. The "hidden curriculum" of the middle class home is no longer so hidden, and some of the mystery has gone out of its course of study. We now have a pretty good idea that much of it consists of the perceptual, motor and especially verbal stimulation casually -- sometimes enremittingly -- offered to the developing infant and toddler in rich, ordered sequence by his frequently college educated parents, and especially by the mother.

It was the proposition of the Verbal Interaction Project that low-income mothers could also be effective Tutors in the Original Word Game, in spite of their relatively limited preparation for that Game. The performance of our own first year sample of low income mothers on the Peabody Picture Vocabulary Test supported the general observation of the limited verbal efficiency of many low-income adults. This was hardly to be wondered at in our mothers, not only because of their average 10th grade education, but because of their socialization in what were probably verbally limited families. Indeed, their education was dramatically higher than that of their own parents, most of whom had gone no higher than the sixth grade in school. Our mothers' educational and perhaps verbal attainments were on an ascending spiral -- but one not reaching high enough for effective social mobility or for assuring, without help, their own children's escape from the binding cycle of poverty.

Yet with these limitations, every one of our low-income mothers was a competent user of language within the restricted code described by Bernstein (1965) and found to be a feature of American social class structure by Hess (1964). Although many vestiges of enactive modes of representation could still be observed in their cognitive styles, it was surmised that generally the mothers in our 3 year sample (which seemed fairly representative of the low-income population) had entered the iconic mode, even if lagging in their mastery of symbolic modes of representation, to adopt Bruner's model of cognitive development (1966). There was no theoretical reason that a mother

could not be an efficient cognitive trainer of her own toddler, just entering the iconic mode, by using principles of "instrumental conceptualism", if she had both guidance and the availability of self-motivating materials to provide the perceptual categories necessary for the Original Word Game.

The operationalization of the Original Word Game, or family verbal interaction; the guidance; and the materials were the essential components of the Mother-Child Home Program. All three were based on the further assumptions that if cognitive enrichment is embedded in the child's relationship with his mother -- usually the most enduring of his childhood -- and if it is so developmentally appropriate that it is regarded as play by the child, powerful affective allies will be marshalled on the side of the child's cognitive learning. Various other theoretical lines were also consulted,[2] but all were subsumed under the main propositions. Thus incorporating the theory and research of several basic investigations, the Mother-Child Home Program was created as a simple, home based, mother and family involving, two year cognitive intervention method (seven months in each year). It utilized women of varying income and education as volunteer and paid interveners to guide mothers toward becoming the cognitive trainers of their own toddlers (starting at age two) by stimulating verbal interaction in mother-child dyads around gifts of attractive, self-motivating materials, in semi-weekly, half hour home visits.

The materials thought to be most self-motivating to the child, and, equally important, to his mother, were toys and books, all commercially available, and chosen on the basis of many field-tested criteria, with the overriding consideration being suitability to the child's developmental level. The function of these materials to provide motor-perceptual categories for verbal interaction was considered to be so dominant that they were entitled Verbal Interaction Stimulus Materials, or VISM, for short. This is

[2] E.g., the implications for the cognitive role of play in Held's studies of reafference (1965); Hebb's neurophysiological model; Piagetian concepts of the instrumental interaction between organism and environment in intellectual development.

an admittedly ridiculous mouthful for, say, a little cart of colored blocks. But the intention was to fix firmly in the minds of interveners and mothers alike the primary function of the toys and books: to spark the dialogue between children and mothers. To keep the dialogue going, even after the Program is over, they were assigned permanently to the child.

The major categories of that dialogue were translated into "guide sheets" written for each VISM. These guide sheets contained illustrations from the properties of specific books and toys set into a language - stimulating framework simplified from a detailed intervention record kept in the first year of investigating the Program. The guide sheets thus contained verbal interaction techniques uniquely appropriate for stimulating the mother-child dialogue around each VISM.

The guide sheets, however, were meant not for the use of the mother but for the interveners, whose job it was to guide the mother into the utilization of the techniques with her own child. It was clear in devising the Program that our intervention involving low-income mothers must avoid the written language route to guidance, to bypass pressures on her and her child. It should be spontaneous, relaxed, and above all, non-didactic. It should provide a means of the child's enrichment which is there for the mother to use as she sees fit, without explicit teaching on the part of the interveners or explicit pressure to learn on hers. The guide sheets, therefore, were provided to interveners who were called by the least didactic title we could think of which still defined the role: Toy Demonstrators. The Toy Demonstrators received the guide sheets along with the VISM and, after studying their simple suggestions, brought the VISM of the week to a play session in the home with mother and child in which she demonstrated the verbal interaction techniques to the mother in her play with the child, involving the mother in the play as early as possible in each session. The VISM was then left with the child, as a gift, with the hope that the mother and other family members would play or read to the child daily, as was suggested to her when she first entered the Program. To reinforce this suggestion, the Toy Demonstrator matter of factly filled out a simple record sheet at each Home Session with the answers to two questions: "Who played with the child this week between sessions?" "Who read to the child this week between sessions?" (She also filled in the answers to a third question, but more of that later.)

The stable, verbally stimulating categories on the guide sheets, the Program's cognitive curriculum, were developed from a first year research instrument, a home session rating record. In it the Toy Demonstrator was admonished in regard to the toys to NAME, AND ENCOURAGE THE CHILD TO NAME: labels, colors, shapes, size, texture, number, relationships, causing things to happen, words that classify. She was told to DESCRIBE YOUR ACTIONS, ENCOURAGE THE CHILD TO DESCRIBE HIS ACTIONS: generally, and for matching, fitting and sounds; and to REMIND HIM TO THINK ABOUT WHAT HE DOES: to give his attention, to make a choice, to have self-control, to remember other experiences, to pretend, to do things in the right order. Each of these categories of verbally related behavior had a different illustration with each new VISM. But every new guide sheet also contained some general reminders: Encourage him to talk (ask him questions, listen to his answers, answer his answers); encourage him to want to learn (praise him when he does well, try to ignore his mistakes, help him when he really needs help); encourage his curiosity, his imagination, and his independence; have fun with this child and his mother.

The guide sheets for the books repeated the general reminders and included many of the categories appropriate to toys. In addition, they contained eight general suggestions for reading with the child and mother (e.g.,try to sit with the child between you and his mother...read to him in a clear easy voice...invite the mother to take over the reading as soon as she and the child seem ready) and the instruction to stop at most pictures in the book to invite him to point out and name illustrations of the categories, to associate to his own experiences, and to reason out specific aspects of the pictures ("Why did the mother bird go away?" "Could this be the baby bird's mother?") We hoped, incidentally, that the frequent use of pictures for verbal interaction would increase the child's eventual "representational competence" found by Sigel (1967) to be limited in low-income kindergarteners.

The verbally oriented curriculum thus provided a combination of easily learned structure and flexibility. The interveners were encouraged to operate with creative autonomy within the general structure, using the VISM-related examples on the guide sheets as take off points for their own ad lib ingenuity in Home Sessions. The self-starting VISM were always there,

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common to all interveners and mothers, to stimulate and support verbal inventiveness within the framework of the curriculum, contained in a cumulative Toy Demonstrator's Visit Handbook. As a result, interveners widely separated in educational sophistication and general life experience were able to work in harmony with the curriculum and with each other.

The Toy Demonstrators were women who varied widely in their education and life experience, ranging from Master's degrees to high school, with incomes ranging from very high, to incomes low enough for eligibility in low income housing projects. They were either volunteers; (middle to high income and usually college educated); or paid aides, most of whom were former mother-participants in the Program, (of low income and relatively low education).

Almost any woman without gross physical, emotional, or mental deficiencies could become a Toy Demonstrator. Our mothers preferred female visitors but had few other specifications (Table 1, page 7). After an intensive Application Interview, prospective Toy Demonstrators were screened out only by attending every one of the eight sessions in a yearly Training Workshop in September. They then met for group supervision by Program Supervisors (who had themselves served an apprenticeship as Toy Demonstrators) in weekly Toy Demonstrator Conferences, until the following May, with individual supervision freely available by telephone or personally.

The Toy Demonstrator Conferences took up many matters beside the obvious one of introducing new VISM and guide sheets. There were individual problems and questions noted by the Toy Demonstrators in their comments on the Home Session Records of the week before. There were the questions raised at the Conference, the shared experiences, and the support of the group for its members. Above all, there was the awareness of the concerns, needs and feelings of the mother-child pair, and particularly of the mother, to be fostered in the conference by the Supervisor.

In the three and a half years of the short term, and beginning long range, cognitive success of the Program (very significant IQ gains after each year of the Program and similar gain retention in the first Follow-up Study in 1970, for Experimental but not for Comparison Groups, Tables 2 to 5, pages 9 to 12), the Toy Demonstrator's sensitivity to the affective needs of the mother appears to be one of the most important factors in its

TABLE 1
MOTHER'S REPORT OF OWN AND FAMILY ATTITUDES IN FINAL INTERVIEW,
SECOND AND THIRD RESEARCH YEARS, EXPERIMENTAL AND COMPARISON GROUPS

Mother's Report at Final Interview	1968-1969 Groups	1969-1970 Groups		C_3
	Prog. I N=27 %	Prog.II N=19 %	Prog.I N-30 %	Prog.I VISM N=12 %
CHILD AND FAMILY				
Child's moderate or marked pos. behav. change	84	90	80	100
Child talks much more	77	47	64	58
Pos. change in father's interaction	58	40	40	75
Siblings'positive reaction to MCHP	84	85	79	78
MOTHER				
MCHP very good	85	100	97	100
Moderate or fairly full goals knowledge	53	60	77	---
Positive change in mother's interaction	72	79	44	67
Knows why present at Home Sessions	92	93	89	---
Knowledge of desirable intersession activity	96	100	100	---
Plays more with child	70	79	47	76
Talksmore with child while playing	84	84	60	75
Talks more with child generally	67	79	67	67
Reads more to child	89	84	73	84
Praises child more	78	89	70	91
Punishes child less	30	33	23	0
More patient with child	63	42	43	67
Learned at least one thing in MCHP	88	89	87	---
Prefers home locus for MCHP	71	94	93	---
If employed, job hampered cooperation	15	35	50	---
Thinks child's POSTTEST performance was relatively poor	45	53	47	25
MOTHER'S ATTITUDES TO TD				
Satisfied with own TD	96	100	100	---
Wishes same TD next year	89	---	89	---
Prefers woman TD	96	79	87	---
Prefers TD same age or older than self	48	11	34	---
Indifferent to TD's skin color	100	95	93	---
TD's language should be same as mother's	78	74	70	---
Indifferent to whether TD lives close by	76	79	50	---
TD should not be friend or relative	36	16	47	---
TD's education not important	56	47	63	---
TD should know more words than mother	63	59	47	---
TD should use correct grammar	89	85	83	---
TD should be neatly dressed	70	63	43	---
TD should be very friendly and warm to child	82	80	77	---
TD should be very friendly & warm to mother	89	78	56	---
TD should not be friendlier to child than mother is	44	50	67	---

acceptability to the mothers. Since "acceptability" must have a profound influence on the mother's utilization of the Program, whether or not she can be persuaded to go through the motions of cooperating by such alluring features as gifts of expensive toys and books to her child, the greatest care went into every aspect of the Program which affected the involvement of the mother, to try to make this genuine rather than lip service to an ideal.

To achieve mother-involvement in fact as well as in wish, almost as much attention had to be given to the training and needs of the interveners (the Toy Demonstrators) as to the consumers (the dyads), resulting in the side-benefit of a high degree of intervener stability. As of last June, 45 Toy Demonstrators had been in the Program, with a very low drop-out rate (10%) within any of the two complete years they were used in the Program, and indeed, a similarly low drop-out rate for volunteers from year to year. Paid Toy Demonstrators tended to go to full-time jobs, not being able to afford the luxury of putting their enthusiasm for their work in the Program ahead of needed income, so only one of the original five continued for the two years, although two continued as Toy Demonstrators for their own children. (The Program was not able to give full-time jobs to interveners.) Eleven low-income, high school educated, Paid Aides and 34 middle or upper income, mainly college educated, volunteers were Toy Demonstrators from September 1968 through June 1970.

The loyalty of the Toy Demonstrators did not stem from having an undemanding job. On the contrary, from the first, when they were told that their continuation in the Program depended on attending every session of the Training Workshop, the expectations from them in terms of effort were very high. As already noted, they also had to attend every weekly group supervisory conference, except for a few planned absences. Absences for emergency were made up by individual conferences. Absences from Home Sessions (unless for general weather emergencies) were simply not allowed; if a personal emergency prevented a Toy Demonstrator from attending a planned Session, she was expected to arrange coverage from her "buddy" or even from a Program Supervisor. The Toy Demonstrators had to keep up with the modest paper work (brief Home Session records and mothers' signatures for VISM received) and, perhaps hardest of all, had to be willing to evaluate with their supervisors twice a year the quality of their work on about

TABLE 2

GROUP GENERAL IQ'S (CATTELL/STANFORD-BINET) BY YEAR OF MOTHER-CHILD HOME PROGRAM (MCHP)

Nine Sub-Groups (by Treatment)	Entry Age (Years)	1967 N[b]	1967 IQ	1967 S.D.	1968 N[b]	1968 IQ	1968 S.D.	1969 N[b]	1969 IQ	1969 S.D.	1970 N[b]	1970 IQ	1970 S.D.
	EXPERIMENTAL GROUPS												
ONE YEAR OF MCHP													
1. Interveners = Social Workers	3	17	88.2[a]	11.0	17	104.5	15.1	—	—	—	(17	100.9	13.8)[c]
2. Interveners = Aides	2	—	—	—	—	—	—	30	86.1[a]	13.3	30	101.9	15.0
3. Interveners = Aides (1967 C_1 Group)	2,3	See 1967 C_1 Group			See 1968 C_1 Group			8	98.5	12.4	(7	109.1	6.6)[c]
TWO YEARS OF MCHP													
4. Interveners = Social Workers: 2nd Yr. = 7 VISM, no Home Sess.	2	7	84.3[a]	8.3	6	99.3	11.8	6	99.3	11.4	(7	98.3	6.4)[c]
5. Interveners = Social Workers; 2nd Yr. = 7 VISM + 9 Home Sess.	2	9	82.3[a]	5.8	8	102.3	10.2	7	106.4	13.1	(9	102.3	12.4)[c]
6. Interveners = Aides; full MCHP for 2 years	2	—	—	—	27	88.9[a]	9.5	27	100.6	9.6	19	108.6	8.4
	COMPARISON GROUPS												
COMPARISON TREATMENTS													
7. Comparison$_1$ (Visitor only)	2,3	9	87.4[a]	11.0	9	88.4	9.5	—	—	—	—	—	—
8. Comparison$_2$ (Untreated)	2,3	11[e]	92.0[a]	9.7	11	94.0	8.8	—	—	—	(16[d]	94.2	19.0)[c]
9. Comparison$_3$ (VISM only)	2	—	—	—	—	—	—	12	85.0[a]	7.7	12	93.0	12.3
TOTALS FOR NEW S'S:		53			27			42			5[d]		
SUBJECT TOTAL: 127													

a. Pretest IQ
b. N=S's tested at Posttest or follow-up
c. Figures within parentheses = Follow-up study data
d. Follow-up N for C_2 Group larger than first Posttest N because of attrition at Posttest 1
e. 19 C_2 S's actually pretested.

TABLE 5

GROUP VERBAL IQ'S (PEABODY PICTURE VOCABULARY TEST) BY YEAR OF MOTHER-CHILD HOME PROGRAM (MCHP)

Nine Sub-Groups (by Treatment)	Entry Age	1967 N[b]	1967 IQ	1967 S.D.	1968 N[b]	1968 IQ	1968 S.D.	1969 N[b]	1969 IQ	1969 S.D.	1970 N[b]	1970 IQ	1970 S.D.
		EXPERIMENTAL GROUPS											
ONE YEAR OF MCHP													
1. Interveners = Social Workers	3	17	75.9[a]	9.6	17	90.1	12.2	---	---	---	(17	90.1	14.2)[c]
2. Interveners = Aides	2	---	---	---	---	---	---	30	81.8[a]	12.7	30	90.5	13.9
3. Interveners = Aides 1967 C_1 Group	2,3	See 1967 C_1 Group			See 1968 C_1 Group			8	86.8	17.4	(7	102.0	12.8)[c]
TWO YEARS OF MCHP													
4. Interveners = Social Workers; 2nd Year = 7 VISM, no Home Seas.	2	7	80.0a	8.0	5	84.8	11.1	6	90.0	12.8	(7	88.3	12.9)[c]
5. Interveners = Social Workers: 2nd Year = 7 VISM + 9 Home Seas.	2	8	79.1[a]	5.7	8	89.1	13.0	7	96.3	14.7	(9	98.6	13.1)[c]
6. Interveners = Aides: full MCHP for 2 years	2	---	---	---	27	84.0[a]	11.8	27	89.3	11.1	19	96.0	11.6
		COMPARISON GROUPS											
COMPARISON TREATMENTS													
7. Comparison$_1$ (Visitor only)	2,3	9	82.6[a]	8.0	9	78.6	12.3	---	---	---	---	---	---
8. Comparison$_2$ (Untreated)	2,3	10[e]	84.1[a]	12.9	10	88.8	13.0	---	---	---	(15[d]	95.9	17.2)[c]
9. Comparison$_3$ (VISM only)	2	---	---	---	---	---	---	12	85.5[a]	8.5	12	79.3	12.4
TOTALS FOR NEW S'S		51			25			42			4[d]		
SUBJECT TOTAL 122													

a. Pretest IQ
b. N = S's tested at Posttest or Follow-up
c. Figures within parentheses = Follow-up Study data
d. Follow-up N for C_2 Group larger than first Posttest N because of attrition at Posttest 1
e. 19 C_2 S's actually Pretested

TABLE 4

GROUP DIFFERENCES IN GENERAL IQ's (CATTELL/STANFORD-BINET): PRETEST VS. POSTTEST 1, POSTTEST 2, FOLLOW-UP 1

Nine Sub-Groups (by Treatment	Entry Year	Pretest vs. Posttest 1 (8 mos. after Pretests) N[a]	Diff.	S.D.	t	Pretest vs Posttest 2 (20 mos. after Pretest) N[a]	Diff.	S.D.	t	Pretest vs. Follow-up 1 (30 mos. after Pretest) N[a]	Diff.	S.D.	t
		EXPERIMENTAL GROUPS											
ONE YEAR OF MCHP[b]													
1. Intervenors = Social Workers	1967	17	17.0	10.6	3.4***	—	—	—	—	17	12.7	7.6	6.9***
2. Intervenors = Aides	1969	30	15.8	10.4	8.3***	—	—	—	—	—	—	—	—
3. Intervenors = Aides (1967 C_1 Group)	1968	See 1967 C_1 Group				8	10.0	13.4	2.1	7	18.1	13.5	3.6**
TWO YEARS OF MCHP[b]													
4. Intervenors = Social workers; 2nd Year = 7 VISM, no Home Sees.	1967	9	17.7	12.3	4.3***	9	15.0	15.0	3.0**	7	14.0	11.2	3.3**
5. Intervenors = Social Workers; 2nd Year = 7 VISM + 9 Home Sees.	1967	5	18.0	11.0	3.7**	5	24.8	14.0	4.0**	9	20.0	12.8	4.7***
6. Intervenors = Aides; Full MCHP for 2 years	1968	27	11.7	7.2	8.4***	19	17.2	7.6	9.9***	—	—	—	—
		COMPARISON GROUPS											
COMPARISON TREATMENTS													
7. Comparison$_1$ (Visitor only)	1967	9	1.0	9.0	.3	C_1 Group became Sub-Group 3(above)				C_1 Group became Sub Group 3 (above)			
8. Comparison$_2$ (Untreated)	1967	11	2.0	9.3	.7	—	—	—	—	16	2.3	17.3	.54
9. Comparison$_3$ (VISM only)	1969	12	8.0	12.2	2.3*	—	—	—	—	—	—	—	—

a. N = subjects tested at Posttest or Follow-up
b. Mother-Child Home Program
*p < .05 **p < .02 ***p < .01

TABLE 5

GROUP DIFFERENCES IN VERBAL IQ's (PEABODY PICTURE VOCABULARY TEST): PRETEST VS. POSTTEST 1, POSTTEST 2, Follow-Up 1

Nine Sub-Groups by Treatment)	Entry Year	Pretest vs. Posttest 1 (8 mos. after Pretest) N[a]	Diff.	S.D.	t	Pretest vs. Posttest 2 (20 mos. after Pretest) N[a]	Diff.	S.D.	t	Pretest vs. Follow-up 1 (30 mos. after Pretest) N[a]	Diff.	S.D.	t
						EXPERIMENTAL GROUPS							
ONE YEAR OF MCHP[b]													
1. Interveners = Social Workers	1967	17	15.0	12.3	3.2***	—	—	—	—	17	14.1	11.2	5.2***
2. Interveners = Aides	1969	30	8.6	11.4	4.2***	—	—	—	—	—	—	—	—
3. Interveners = Aides (1967 C_1 Group)	1968	See 1967 C_1 Group				8	3.4	17.5	.6	7	17.6	16.8	2.8*
TWO YEARS OF MCHP[b]													
4. Interveners = Social Workers; 2nd year = 7 VISM, no Home Sess.	1967	5	15.8	8.4	4.2**	6	8.8	16.3	1.3	4	18.0	11.7	3.1*
5. Interveners = Social Workers; 2nd year = 7 VISM + 9 Home Sess.	1967	5	9.6	7.4	2.9*	5	20.8	12.0	3.9**	8	22.1	8.3	7.5***
6. Interveners = Aides; full MCHP for 2 yrs.	1968	27	5.3	12.8	2.2*	19	7.7	14.7	2.3*	—	—	—	—
		COMPARISON GROUPS											
COMPARISON TREATMENTS													
7. Comparison $_1$ (Visitor only)	1967	9	-4.0	9.6	1.5	C_1 Group becomes Sub-Group 3				C_1 Group becomes Sub-Group 3			
8. Comparison $_2$ (Untreated)	1967	10	4.7	16.3	.8	—	—	—	—	14	12.0	20.8	2.1*
9. Comparison $_3$ (VISM only)	1969	12	-6.2	11.8	1.8	—	—	—	—	—	—	—	—

a. N = Subjects tested at both times
b. Mother-Child Home Program
*p $<$.05 **p$<$.02 ***p$<$.01

50 work-related items classified under knowledge and attitudes; dependability; work skills; and use of supervision and the Supervisory Group. In preparation for this, each Toy Demonstrator tape recorded two Home Sessions, one near the beginning of the Program year, and one near the end. The quality of work performance of Paid and Unpaid Toy Demonstrators was almost equal. (See Tables 6 and 7, pages 14 and 15.)

In return for the Toy Demonstrator's time, effort, and emotional investment, the Program Supervisor gave unreservedly of her knowledge and emotional support. She respected the unique attributes and affective reactions of the interveners. In doing so, she served as a model to the Toy Demonstrators in their own interaction with the mothers and children. Besides the sensitivity and appropriate responses to the emotional needs of the children and mothers taught in supervision, the Toy Demonstrator often reflected in her Home Session activity the respect with which she herself has been treated in the Program.

"Respect" is another key word for the aim of the Program in involving the mothers, from the initial contact in inviting her into the Program. Even her decision not to enter the Program at all was respected, whether conveyed verbally or in enactive signals, like repeatedly failing to be at home for her Initial Interview. But having made that decision to enter, she was respected enough to be asked to make the firm commitment of being present at all Home Sessions, which occur twice weekly, for a total of 46 in each of two Program years. During three years of operation from July 1967 to August 1970, only 4 mothers of the 103 in the Experimental Group have voluntarily dropped out of the Program during a Program year, and only one was asked to drop out because of repeated, demonstrated inability to keep appointments without prior arrangement with the Toy Demonstrator. Since there was almost no initial screening of mothers on any grounds except their own wishes, this seems a relatively low number.

The regard for the mother's wishes, privacy, and general autonomy continued throughout the Program, a sometimes difficult task because it was most often signalled rather than spoken. It was ironic that in so verbally oriented a Program, a great deal of attention was paid to what both child and mother tried to convey by non-verbal enactive means. The Toy Demonstrators were taught to respond with both verbal and non-verbal behavior. Return

TABLE 6

SUPERVISORS' RATINGS OF TOY DEMONSTRATORS' KNOWLEDGE AND ATTITUDES AS MODERATELY OR MARKEDLY PRESENT

Knowledge and Attitudes	PAID (Low-income)		UNPAID (Middle-income)	
	1968-1969 N = 5 %	1969-1970 N = 4 %	1968-1969 N = 13 %	1969-1970 N = 29 %
Understands MCHP goals and own role	80	100	100	86
Respects family's privacy	80	100	100	100
Observes confidentiality	80	100	100	100
Positive attitude toward mother	80	100	92	100
Positive attitude toward child	100	100	100	100
Respects mother	60	100	100	100
Respects child	80	100	100	100
Sensitive to mother's feelings	80	100	85	96
Sensitive to child's feelings	80	100	100	96
Non-judgemental re family	80	100	100	96
Recognizes child is mother's responsibility	100	100	100	96
Recognizes own patterns with dyad	80	75	85	96
Flexible interaction with dyad	80	100	100	100
Controls own negative trends	100	100	77	100
Adequate self-esteem in re job	80	100	92	100
Commitment to MCHP goals	100	100	100	100
Good judgement with dyad	80	100	92	100

TABLE 7

SUPERVISORS' RATINGS OF TOY DEMONSTRATORS' PROGRAM BEHAVIOR AND SKILLS AS MODERATELY OR MARKEDLY PRESENT

Behavior and Skills	PAID (Low-income) 1968-1969 N = 5 %	PAID (Low-income) 1969-1970 N = 4 %	UNPAID (Middle-income) 1968-1969 N = 13 %	UNPAID (Middle-income) 1969-1970 N = 29 %
DEPENDABILITY				
Appropriate dress	80	100	100	100
TD Conference - attendance	60	100	100	96
TD Conference - punctuality	40	75	85	96
Ind. Sup. Conf. - attendance	60	100	92	100
Ind. Sup. Conf. - punctuality	40	100	92	96
Home Sessions - attendance	80	100	92	100
Home Sessions - notifies mo.if cancels	80	100	100	96
Home Sessions - records(#21)up to date	60	100	92	96
Home Sessions - signatures up to date	60	100	100	100
Accuracy of objective records	60	100	92	96
Adequacy of written comments	40	100	100	100
USE OF SUPERVISION AND GROUP				
Learns undefensively	100	75	85	100
Asks appropriate questions	80	100	85	100
Contributes to discussion	80	100	85	93
Independent of supervisor	60	100	69	96
Interacts well with other TDs	80	100	92	100
Helps other TD's in group	80	100	85	89
Accepts help from supervisor	100	100	92	100
Makes good use of supervision	80	100	100	100
Modifies behavior bec. of supervision	80	100	85	100
Adapts to organization/time change	80	100	100	96
WORK SKILLS				
Uses TD-VISIT techniques in H.S.	80	100	100	100
Uses self creatively	60	100	100	93
Gives mother early responsibility	40	100	85	71
Takes adequate care of materials	80	100	100	100
Relates to child in Home Sessions	100	100	100	100
Relates to mother in Home Sessions	100	100	92	96
Fosters teamwork with mother	60	100	92	89
Manipulates VISM adequately	80	100	100	100
Adapts to emergencies	80	75	62	86
Overall ability	60	100	85	96
Growth in job performance	60	75	38	57
Needs only routine supervision	20	75	54	96

signals were then received that mothers generally approved of a Program whose interveners showed by their actions their commitment to the basic affective premise of the Program: that the mother is the ultimate and enduring cognitive socializer for her own young child, and that every intervention activity must enhance her relationship with him rather than dilute it.

The main index of the mothers' approval was a small but important statistic: the average number of Home Session appointments out of a possible 46 kept by the mother in each of three Program years. In 1967-1968 (when social workers were the interveners) the number was 32.4. In the next two years the non-social worker aides were the Toy Demonstrators. In 1968-1969 the number of appointments kept was 34.7. And in 1969-1970, the mean number was 38.2. Few appointments were failed without previous cancellation by the mother, and the explanation volunteered was usually credible.

Besides the staff's attempt to respond to the mothers' non-verbal signals, a more direct affective approach was to listen to their verbal communications: in three regular home contacts during the Program year with the Program Supervisors (Initial Interview, mid-year brief evaluation by the mother, Final Interview); in special interviews with the Program Supervisor when a Toy Demonstrator reported in supervision that a mother appeared to have a pressing need to discuss a family problem; and in each Home Session when she replied to that third question on the Home Session Record: "What important things happened to the child or in the family since our last session?"

The veracity of the information given by the mother in reply to the last question above was felt to be secondary to reinforcing twice weekly to the mother staff's interest in her concerns, if she cared to share them. The Toy Demonstrator tried thus to balance our care not to intrude on the mother's privacy with the message that she understood the importance of the major life events which impinge on mother and child.

It was within this framework of reciprocal attitudes of intervener and consumer that the Toy Demonstrator went about "involving" the mother in the cognitive curriculum of the Home Sessions, with the aim of transferring the verbally oriented play with the child completely to the mother as early in each session as possible. Toy Demonstrators for 1970-1971 were recently asked to feed back descriptions of techniques they had found most useful for

involving mothers, and these provide graphic illustrations of how each adapt to her own style and ingenuity what she has learned in supervision. (A sampling of these descriptions will be found in the Appendix.)

The amount of mothers' actual "involvement" during sessions was on a continuum, with a wide range between two extremes. In 1969-1970 most mothers were active for a mean of at least a third of each session, and the more experience they had in the Program, the more active they tended to be. However, the mean session activity ranged from 0 (seven mothers) to 100% (five mothers). Some mothers, it seems clear, sat passively throughout all or most of each session; and some were so active as hardly to require a Toy Demonstrator.

It was our impression that a few of the mothers were too shy to be active in the presence of the Toy Demonstrator but were nevertheless utilizing the materials extensively with the children between sessions. But there were also a few whose passivity in the Home Session was an accurate indicator of their lack of activity with the child between sessions as well. Except for a mild reminder, at the mid and post intervention interviews, of their own important cognitive function with the child, however, no pressure was put on these mothers to increase their verbal interaction with their children. It is possible that for the children of these mothers, the enrichment came mainly from their Toy Demonstrators rather than from their mothers, for no significant relationship could be found between the amount of the mother's Session activity and the amount of her child's cognitive short-term gain. The long range gain retention may tell a different story; children of mothers who do not work (play) with them during the Program may also not do so after its termination, and there may be a loss in IQ without such continued reinforcement. In spite of this risk, the mother's choice not to be more active with her child was respected, like all of her choices. She had already taken a giant step, we felt, when she opened her door to the Program and allowed the intrusion of a stranger for 23 weeks of Home Sessions with her and her child.

And intrusion it was, whether invited or not. It is one the low-income mother appears to permit because of her strong motivation for her child to take advantage of a good education. Our finding from interviews was that the great majority of our mothers want their children to go to

college and to become professionals of one kind or another, usually doctors, nurses, or teachers. Most will welcome any kind of cognitive intervention that looks as if it may help regardless of its actual effectiveness, as we learned from the enthusiastic anonymous evaluations, written in the first year, by both Experimental mothers in the full Mother-Child Home Program and Comparison mothers of children receiving an intervention not intended, nor found to be, cognitively effective. This trust, because of their yearning for upward mobility for their children, lays a heavy burden upon the researcher for the constant testing of program refinement, which Flanagan seems to advocate in his distinction between formative and summative evaluation (1971).

On the other hand, low income mothers also pose an opposite, and equally delicate, problem in their recruitment as research subjects or consumers of a home intervention program. Some, no matter what the strength of their aspirations for their children, really want no part of such a program, for reasons personal and private to themselves. When we interveners come knocking at their doors, their real wish is to tell us to go away -- and this is their right. But because verbal refusals to Authority come hard to poor people, they are likely to express their rejection in the non-verbal signals noted earlier. Minuchin and Montalvo have commented on the occasional necessity for therapists to utilize enactive modes of representation in communicating with some low-income resistant patients (1967). By the same token, interveners should be receptive to negative enactive signals from prospective consumers whom we may hope to save from themselves. Their choice not to be "saved" should be heeded, and we must be especially tuned in to non-verbal modes in order to perceive the choice. Otherwise, our enthusiasm for the feasibility and effectiveness of home based intervention programs like the Mother-Child Home Program may result in an unconscionable invasion of the privacy of citizens who are least able to protect themselves.

These mothers who genuinely do wish to avail themselves of the Mother-Child Home Program have an opportunity to enhance the strengths of the family and their own dignity in relation to their children. We are still, in continuing the Verbal Interaction Project, measuring the effects of this intervention on children's cognitive growth and are

beginning to explore what may prove to be at least equally important: its affective impact on mother and child.

The potential importance of benign family affective factors interacting with the preschooler's informal home education was recognized by Grotberg in her practical eight-point prescription for parents (1968). Schaefer has conceptualized as "ur-education" the family's role in the cognitive development of young children in a comprehensive theoretical exposition of this family function (1969). And "ur-education" is encouraged, with all of its far reaching implications, by the Mother-Child Home Program of the Verbal Interaction Project.

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APPENDIX

TOY DEMONSTRATORS' DESCRIPTIONS OF "MOTHER-INVOLVEMENT" TECHNIQUES

From Paid Toy Demonstrators

"I think we involve the mother the first time we enter her home with the toy chest and a TD with smile and personality. The TD has to show the mother that she too is involved and likes what she is doing with mother and child, with mother and TD working hard to put a toy chest together for her child."

"Before we demonstrate any VISM, we invite mother to sit down on couch or floor and have the child in between mother and TD."

"The Toy Demonstrator never has a session without the mother."

"TD's are always friendly and never critical."

"If the mother has to leave the room, we will wait until she comes back, and when we think she is ready, the TD will ask her to take over the reading."

"The TD includes her in the whole session. We never try and take her place."

"It is taken for granted that mother knows that she is to participate. So I will try first to get everyone seated together on the couch with the child between Mother and TD. I try to get everyone seated this same way at each session."

"I will read the book first to child and mother. And I will gradually try to involve her with the pictures in the story, as to her ideas. Or, 'Mary, show mommy the big red balloon.' Or, 'Mommy, can you show Mary where the parrot is hiding?'"

"When I think mother is ready to read, then I would ask her if she would like to read. Or say: Mommy, will you like to show Johnny how to fit the puzzle together? Or blocks, etc."

"I will also try to get to her through the child if she is a little slow about involving herself: Mary, show mommy how nice you can fit the children in the bus. Or how you can fit the blocks in the mail box. Or: Would you like mother to help you?"

"I will show warmth and respect and never be too critical."

"I think that the attitude of the TD has a lot to do with mother's involvement. If the TD has a pleasing attitude and a smile, a little or a lot of patience, and try to show that you are having fun, well, I don't think it would be too difficult to get the mother involved."

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"I hadn't seen the VISM for about three weeks because of vacation and cancelled session. When I saw my mother, she told her little girl that I would read the book to her. I made an excuse that since I hadn't had as much time with the book, perhaps she (the mother) would like to read to her daughter. Which she readily did."

"It might be easier to suggest to child to show her mother certain things because the mother-child relationship is so close. This way the child will be drawing the mother's attention and the mother will probably be more at ease."

"If you have a toy, such as a musical one, and you are not too comfortable with it, you can say to mother I'm not too sure if I can make a tune with this. Perhaps the mother if she is not musically inclined will feel at ease and if she is she might demonstrate to the child."

"Although we know how to demonstrate the Toy, we have to try not to seem superior or to know it all. If we are looking for a certain word to describe a toy and can't think of the word we can say to the mother what do you think would be a good word to describe this."

From Unpaid Toy Demonstrators

"Ask mother to read alternately with TD: you read one page."

"With toy, actually handing pieces, eg, blocks, to mother."

"When working with two children in family, asking mother to work with one."

"We act as guests in her house, happy that she allows us to come...she is also made to understand that her wishes come first, and that she can change Toy Demonstrators if she wishes."

"After knowing what mother's capabilities are, I try to involve her physically with the toys. We play catch, by color. Fantasy a bit with her. Generally, I try to evoke cheerful responses to this kind of play and learning."

"Including parts of dyads and TD bodies and clothing: counting fingers, touching them, feet, eyes, nose, etc. Use clothing for texture and color."

"Ask mother about child's experiences relating to VISM".

"Picking up on mother's good points and at times praising and asking her to continue because child responded well."

"Develop expectant pauses where <u>expect</u> mother to fill in verbally."

"Enter with friendly greeting...don't rush, <u>listen</u> to her, and don't be overpowering."

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"Suggest that all take turns with an activity, eg, building blocks."

"Talk to mother and look at her often during session so she feels she is involved even when she doesn't participate."

"Take cues from mother's comments or actions and structure sessions accordingly."

"If possible, try to get child to turn to mother when asking questions, so she will feel more important, not to TD."

"Give the mother as many opportunities for success as possible."

"Assign mother a part in make believe: you be the mother bear, I'll be father bear, and the child will be baby bear."

"There isn't a mother I've ever met in or out of the MCHP who doesn't respond to warm and sincere praise of her child. If you beam - and mean it - she'll be with you more than before. Shared pride is half the battle."

"I asked her if she could sit on the floor and where would be comfortable for her. She positioned herself on the footstool, and we sat around in a circle, and it was easy for all to be involved."

"She found my use of imaginative play funny and participated when I got the children to 'sell' her things, ask questions, etc."

"Through the constant demonstration of a relaxed 'learning is fun' atmosphere, the mother's tone softened to a less domineering one."

"Some parents come from an agrarian culture. This can be related to work with the toy farm."

"Suggest to child to take mother's hand for a game."

"To mother sitting on the sidelines: We need your help with this toy."

"Ask mother for information about child that only she knows, eg, his favorite color, toy, food."

"When mother did not join the group in the beginning, and she was in the kitchen nearby, I spoke in a louder voice telling Mary to go ask mother to join us."

"If mother speaks Spanish, ask her help in providing labels in Spanish."

"An 'entre-nous' approach seems to be the one constant...I address Mrs. B. as one adult to another, that we are doing this for the benefit of the child."

"To obtain her cooperation to be present during session, discuss changing schedule to make it most convenient to her."

APPENDIX

"Allow the mother her own ways of doing things and if she hits upon a successful new method or insight into the VISM, pick up on it quickly and support her in it. In other words, allow yourself to learn from the mother and make this visible to the mother by recognition and use of her methods in the play."

"Ask mother to help set up the VISM."

"If mother is not in the room, call directly to her: Mrs. X, we'd like to show you Johnny's new book. Or use child to go to get mother: Why don't you pull the wagon into the kitchen and maybe she'd like to pull it back. Always relate Mother in story to child's mother: Where's your mommy? Does your mommy do that? Always include mother in play, but don't be so quick to help her or give answers...give her a chance to answer child's questions or help him, eg, fit the block into the mail box."